

Peer-to-Peer Secure File Transfer & Chat Manual

(Simple, Safe, and Direct Connection)

This guide shows you how to quickly establish an encrypted P2P connection between two computers and securely exchange files and messages.

Step 1: One side becomes the “Host” (Listener)

1. Open the program and click **Host**.
2. Choose your preferred **Encryption** type from the dropdown menu.
 - **Recommended:** AES-256-GCM (strongest) or ChaCha20-Poly1305 (very fast).
3. Click **Generate Key**.
 - A long random key will appear (example: U2FsdGVkX1+abc123...).
4. **Copy the key** and send it to the person you want to connect with (via Signal, Telegram, email, etc.).
5. Note your **IP address** and **Port** that are shown (example: 10.0.0.15:52431 or your public IP if outside the local network).
6. Click **Start Listener**.

When the listener is active, the window will look like the host screen.

(The listener will only accept a connection that presents the exact key and connects from an allowed IP.)

Step 2: The other side becomes the “Client” and connects

1. Open the program and click **Client**.
2. Fill in the fields:
 - **IP address** of the host (e.g., 10.0.0.15 or public IP).
 - **Port** shown on the host side (e.g., 52431).
 - **Encryption type** (must match the host's choice).
 - **Key** (paste the exact key you received).
3. Click **Connect**.

When the connection is successful, both sides will show “Connected”.

Step 3: Share files securely

After connecting, a new folder named `p2pchat_files` is automatically created on both computers.

Important rules (for security):

- You can only send files that are placed inside your own `p2pchat_files` folder.
- The other person can only receive files into their own `p2pchat_files` folder.

How to send a file:

1. Put the file(s) you want to share into your local `p2pchat_files` folder.
2. In the chat window, type: `/send filename.ext` (example: `/send vacation-photo.jpg`).
3. The file will transfer instantly and appear in the recipient's `p2pchat_files` folder.

You can also send multiple files at once:

```
/send document.pdf image.png video.mp4
```

You're done!

You now have a direct, encrypted, password-protected connection with no third-party servers involved.

Quick Reference Table

Component	Function
Host	Initiates the connection listener and generates the security key.
Client	Connects to the Host using the IP, Port, and Key provided.
Encryption	Determines the algorithm used to secure the connection (must match on both sides).
Key	The shared secret password required to establish the connection.
<code>p2pchat_files</code>	The dedicated folder for sending and receiving files securely.
<code>/send</code>	Command to initiate a file transfer from the chat window.

Table 1: Quick Reference Guide